Stat 280
Spring 2014
Syllabus

1. Times and places:
   - Class meets MWF at 1 PM; location HRZ Amp.
   - Labs: The day and time of your lab depends on the section of the class for which you registered.
2. Text: Introduction to the Probability and Statistics - Mendenhall, Beaver, and Beaver. 14th Edition.
3. Professor: E. Neely Atkinson
   - office: DH 2099
   - office hours: MWF 2-3, right after class.
   - email: enatk@rice.edu
4. Course components.
   - Lectures. I will assume you have completed all reading assignments and tutorials outside of class. Lectures will be used for: 1) responding to student questions 2) working problems 3) expanding on the more difficult material in the readings and 4) extra material not covered in the text.
   - Labs. Labs will be used to make sure you have the skills necessary to work the assignments and to answer the questions which will be on exams. Lectures will mostly focus on the types of analyses we wish to do an the meaning of the results. Labs will focus on how the analyses are actually performed with special emphasis on computer skills.
   - Reading assignments. There will be assigned readings from the text each week.
   - Tutorial materials. In additional to readings from the textbook, there will be written and video tutorials. These tutorials will primarily be used to teach software skills.
   - Homework assignments. There will be weekly homework assignments. These will be posted to Owlspace. I will try to remember to mention them in class, but it is your responsibility to check Owlspace. The assignments are due whether I remember to announcement them in class or not. Usually, I will make an assignment on Monday of each week; the assignment will be due the following Monday. This schedule will be modified for holidays. Your lowest homework score will be dropped.

- Exams. There will be two exams and a final. The exams and the final will be take home. The final will consist of two parts, each part corresponding to one of the exams. If you score better on a section of the final than you did on the corresponding exam, your score on that section of the final will replace your score on the exam.

5. Owlspace. We will make extensive use of Owlspace. All class material will be posted there. All homework will be submitted through Owlspace. All weekly quizzes will be taken on Owlspace. I will make important announcements using Owlspace.

6. Grading. Your final grade will be based on homework (20%) and exams (80%).

   As explained above, I will drop your lowest homework grade. Also, your score on the final can replace your score on an earlier exam. If you are satisfied with your grades on both exams, the final is optional.

   There will generally be a homework assignment each week in which class meets. The homework assignments will be posted to Owlspace. I will try to remember to repeat the assignment in class, but even if I forget, the assignment is still due, so be sure to watch Owlspace. Late submissions will not be accepted. Homework should be submitted electronically as a single file. The purpose of homework is to learn and practice the material covered in lectures and the text. You may use whatever resources you find helpful to work the assignments, including other students and the Web. However, you must turn in your own work. Submissions which are copies of another student's work will be considered a violation of the Honor Code.

   Exams will be take home and will require the use of the computer skills we learn in class, labs, and tutorials.

   I guarantee the following scale; thus, if you get an 84, your are guaranteed a B. I reserve the right to adjust the scale downward if I feel that a revised scale would better reflect my evaluation of the class achievement.

98 - 100	A+
93 - 97	A
90 - 92	A-
87-89	B+
83-86	B
80-82	B-
77-79	C+
73-76	C
70-72	C-
67-69	D+
63-66	D
60-62	D-
<60	F

7. Software. We will use both Excel and the R programming language for this class. Both of these systems will be covered in labs and tutorials. No previous experience with either package is required or expected.

8. Getting help. You are encouraged to ask questions both in class and during labs. I will also hold regular office hours and will respond to emails.

9. Course Outline. This is a rough outline of the material. This may be adjusted depending on how the class progresses.

   (a) Week 1. 1/13/2014 - 1/17/2014. Chapter 1; graphs.

   (b) Week 2. 1/20/2014 - 1/24/2014. Chapter 2; numerical summaries. (short week).

   (c) Week 3. 1/27/2014 - 1/31/2014. Chapter 3; bivariate data.

   (d) Week 4. 2/3/2014 - 2/7/2014. Chapter 4; probability.

   (e) Week 5. 2/10/2014 - 2/14/2014. Chapter 5; discrete distributions.

   (f) Week 6. 2/17/2014 - 2/21/2014. Chapter 6; continuous distributions.

   (g) Week 7. 2/24/2014 - 2/28/2014. Chapter 7; sampling distributions

   (h) Break. 3/3/2014 - 3/7/2014.

   (i) Week 8. 3/10/2014 - 3/14/2014.Review and test, Chapters 1-6.

   (j) Week 9. 3/17/2014 - 2/21/2014. Chapter 8; large sample sample estimation.

   (k) Week 10. 3/24/2014 - 3/28/2014. Chapter 9; large sample tests of hypotheses.

   (l) Week 11. 3/31/2014 - 4/4/2014. Chapter 10; inference from small samples. (short week).

   (m) Week 12. 4/7/2014 - 4/11/2014. Chapter 12; linear regression and correlation.

   (n) Week 13. 4/14/2014 - 4/18/2014. Review and Exam 2. (short week, probably.)

(o) Week 14. 4/21/2014 - 4/25/2014. Review for Final.

(p) Comprehensive final exam

10. If you know that you will be gone due to official school activities, contact me before your absence to make arrangements for any homework, labs, or tests during your absence.

11. If you have a disability that requires accommodation, please contact both me and Disability Support Services in Allen Center. Possible accommodations include include, but are not limited to, extra time for tests, special settings for tests, the services of a note taker, and permission to record lectures. I will treat your request as confidential and make the accommodation as confidential as is practically possible.

Purposes of class. This course is meant to give you a solid grounding in the basic principles of statistical analysis. At the end of this course:

- You will understand the basic principles which underlie all statistical analyses.
- You be be able to perform a range of basic statistical analyses.
- You will be able to understand the ideas behind more advanced analyses, even if you do not completely understand all the details of the analyses or are not able to perform them yourself.
- You will be able to consult effectively with an expert statistician if the need arises in your work for the use of advanced techniques.